What is claimed is:

1. A miniaturized antenna for sending and receiving a signal having a wavelength comprising:

a substrate; and

a slot dipole line formed on the substrate with an electrical length less than a quarter wavelength and a short circuit at one end and an open circuit at an opposite end.

2. The antenna of claim 1 further comprising:

the open circuit of the slot dipole line including two non-radiating spiral slots formed as symmetrical mirror images of one another and short circuited at one end.

3. The antenna of claim 2 further comprising:

the two non-radiating spiral slots having less than a quarter wavelength.

4. The antenna of claim 1 further comprising:

a bent radiating section of the slot line.

5. The antenna of claim 4 further comprising:

the bent radiating section having at least two portions extending angularly with respect to one another so that no portion carries a magnetic current opposing a magnetic current of any other portion.

6. The antenna of claim 5 further comprising:

a T-shaped end formed on the radiating section.

7. The antenna of claim 1 further comprising:

an open ended microstrip line feeding the slot dipole line of the antenna at a crossing point and extending less than a quarter wavelength.

8. The antenna of claim 1 further comprising:

the slot dipole line having a radiating section with three line portions bent with respect to one another, where one line portion has a width less than a width of other line portions.

9. The antenna of claim 8 further comprising:

relative lengths of each line portion selected to minimize an area occupied by the slot line.

10. The antenna of claim 1 further comprising:

two inductive short-circuited spiral slot lines terminating each end of a straight line section of the slot dipole line, each spiral slot line having a length less than a quarter wavelength while being greater than a straight section of the slot dipole line and having a narrower slot width than the straight line section, the two inductive short-circuited spiral slot lines formed as mirror images of each other one each end of the straight line section of the slot dipole line.

11. The antenna of claim 10 further comprising:

a dimension of the substrate selected for sizing the antenna between $0.01\lambda_0$ and less than $0.50\lambda_0$.

12. The antenna of claim 10 further comprising:

a dimension of the substrate selected for sizing the antenna between $0.05\lambda_0$ and $0.25\lambda_0$.

13. The antenna of claim 10 further comprising:

a very high impedance on an order of 5,000 to 15,000.

14. The antenna of claim 10 further comprising:

a very high impedance on an order of 10,000.

15. The antenna of claim 10 further comprising:

each spiral slot line coiled in a pattern with a maximum dimension less than one-half of a length of a radiating slot section.

16. The antenna of claim 10 further comprising:

the slot dipole line including a folded slot line.

17. The antenna of claim 16 further comprising:

a coplanar waveguide line center-feeding the folded slot line.

18. The antenna of claim 10 further comprising:

an open ended microstrip line feeding the slot dipole line at a crossing point.

19. The antenna of claim 18 further comprising:

the microstrip line extending beyond the slot dipole line defining a second port with small capacitance.

20. The antenna of claim 19 further comprising:

a width of the microstrip line reduced at the crossing point of the slot dipole line.

21. The antenna of claim 1 further comprising:

wherein the antenna is operably coupled with respect to a mobile apparatus selected from a group including an electronic chip, a laptop computer, a body of a motor vehicle, a mirror of a motor vehicle, an aircraft body component, and a missile body component.

22. The antenna of claim 1 further comprising:

the substrate being planar and low profile with a relatively thin thickness and having dimensions of length and width less than one-half the wavelength to be sent and received.

23. The antenna of claim 1 further comprising:

the antenna being monolithic, integrated, and resonant.

24. A miniaturized antenna for sending and receiving a signal having a wavelength comprising:

a substrate;

a slot dipole line formed on the substrate with an electrical length less than a quarter wavelength and a short circuit at one end and an open circuit at an opposite end, the open circuit of the slot dipole line including two non-radiating spiral slots formed as symmetrical mirror images of one another and short circuited at one end, the slot dipole line having a radiating section with three line portions bent with respect to one another, where one line portion has a width less than a width of other line portions, the line portions extending angularly with respect to one another so that no line portion carries a magnetic current opposing a magnetic current of any other line portion; and

an open ended microstrip line feeding the slot dipole line at a crossing point and extending less than a quarter wavelength.

25. A method for designing a miniaturized slot antenna comprising the steps of:

arbitrarily selecting dimensions of the antenna;

feeding the antenna with one of a microstrip line and a CPW line;

finding an antenna resonant frequency by locating a null in insertion loss; and

determining a loss-less termination impedance end of the one of the microstrip line and CPW line to achieve a perfect match.